

tute. Twenty members of the club were in the party. About as many more boys and girls, members of the science club of Theodore Roosevelt High School, joined the party. The woods were fine with the sumachs and dogwoods in brilliant reds and a few red maples glowing in swampy spots. Some of the dogwood trees were bearing very large numbers of bright red fruits. Several species of asters and of goldenrods were found, two species of *Oxalis*, *stricta* and *repens* were in bloom, *Collinsonia* was still in blossom in the thick woods. Several flowers that normally blossom in early spring or summer were found, one flower of the common blue violet, *Viola cucullata*, the rue anemone, *Anemonella thalictroides*, and the Indian pipe, *Monotropa uniflora*. On the edge of the Saw Mill River the party stopped to examine a patch of Lizard's Tail, *Saururus cernuus*. Only one fruiting spike was found though there were a large number of plants. The party examined the nursery of the arboretum where a large number of seedling trees and shrubs are growing. A few of the shrubs were in blossom, *Buddleia himalayana* was especially fine. The growth in the nursery has been very good this past season.

PROCEEDINGS OF THE CLUB

MEETING OF OCTOBER 2, 1928

This meeting was held in Schermerhorn Hall, Columbia University, and was called to order by President Denslow at 8:30 P.M.

Since several botanists have recently joined the staffs of institutions in the New York City area, the regular meeting of the Club was combined with an informal reception to these newcomers. Guests of honor were: Dr. & Mrs. Edmund W. Sinnott, Barnard College, Columbia University; Dr. & Mrs. Bernard O. Dodge, and Dr. & Mrs. Forman T. McLean, New York Botanical Garden.

One hundred and twenty-five members and guests were present, the following institutions being represented:

Barnard College
Boyce Thompson Institute

Brooklyn Botanic Garden
 College of Pharmacy, Columbia University
 Department of Botany, Columbia University
 Fordham University
 Hunter College
 New York Botanical Garden
 New York University
 Rutgers University
 Station for Experimental Evolution, Cold Spring Harbor

Dr. Denslow opened the meeting with a few words of welcome to the botanists who have recently come into the Metropolitan area. The guests of honor were requested to rise, a formality which was carried out to the accompaniment of vigorous applause. Dr. Denslow spoke briefly on the pleasant quality of sociability which characterizes not only botanists, but those in general who are interested in natural sciences.

The first meeting of the fall season is customarily devoted to reports of experiences and the presentation of items of botanical interest connected with the past summer. Speaking along this line, Dr. Harper showed plants sent in by Dr. H. M. Hall of the Carnegie institution. Dr. Hall, by experimental work is seeking, particularly by the growing of different species from seed, to bring out the relationship of the various species, and thus to make clear the evolutionary lines of descent in a given genus.

Mr. Torrey gave a brief outline of some of the field trips of the season and remarked on the evident increase of the Trailing Arbutus as shown by the fact that it was found growing on old wood-roads. Dr. J. S. Karling spoke of his recent trip to British Honduras to study the methods of obtaining chicle gum from the Sapodilla tree (*Achras Sapota*). The gum is obtained by bleeding the trees and this, as well as its method of preparation and shipment, is very similar to that in vogue for rubber.

The meeting was then adjourned, and an informal reception in the laboratories followed, refreshments being served by the Department of Botany, Columbia University.

ARTHUR H. GRAVES
Secretary

MEETING OF OCTOBER 17, 1928

This meeting was held at the Museum Building of the New York Botanical Garden and was called to order by Vice-President Hazen at 3:30 P.M. Twenty-three members were present. The minutes of the meetings of April 25, May 8, and October 2 were read and approved. The following twenty-two candidates for membership were unanimously elected:

Prof. C. B. Atwell, Hotel Cecil, 545 Post St., San Francisco, Calif.

Miss Mary F. Barrett, 19 Elm St., Bloomfield, N. J.

Thomas S. Bates, 4047 Seton Ave., N. Y. City

Miss Emily P. Cohen, 420 West 144th St., N. Y. C.

Mr. Morris Cohen, 16th St. & Michel Ave., Flushing, New York

Dr. B. O. Dodge, N. Y. Botanical Garden, N. Y. C.

Mrs. B. O. Dodge, 3001 Valentine Ave., N. Y. C.

Dr. A. E. Hitchcock, Boyce-Thompson Inst., Yonkers N. Y.

Miss Jeanette M. Kalabza, 2070 Seventh Ave., Long Island City, N. Y.

Miss Helen M. King, 282 Pavonia Ave. Jersey City N. J.

Miss Katie C. Kirkpatrick, 506 Lowry St., Stillwater, Okla.

Miss Elva Lawton, Hunter College, Park Ave., & 68th St., N. Y. City

Dr. Clifford S. Leonard, c. o Burroughs, Wellcome & Co., Tuckahoe, N. Y.

Dr. J. P. H. Marker, 357 Ninth St., Bklyn., N. Y.

Dr. Forman T. McLean, N. Y. Botanical Garden, Bronx Park, N. Y. C.

James E. Mitchell, Mitchell Farm Nursery, Barre, Vermont.

Mr. F. J. Pokorny, Columbia College of Pharmacy, 115 W. 68th St., N. Y. C.

Miss Helen Saunders, 454 Seventh St., Bklyn, N. Y.

Prof. Orville Schultz, Oklahoma A. & M. College, Stillwater, Okla.

Prof. Edmund W. Sinnott, Barnard College, Columbia Univ., N. Y. C.

Miss Ora B. Smith, 12 Fairview Ave, Jersey City, N. Jersey

Dr. P. W. Zimmerman, Boyce-Thompson Inst., Yonkers, N. Y.

The secretary spoke of the death on August 16 of Prof. J. E. Kirkwood, who had been Professor of Botany in the University of Montana, Missoula, Montana since 1913. From 1910 to 1913, he was Professor of Botany and Forestry at the same institution.

By vote of the Club, Mrs. B. O. Dodge was unanimously elected bibliographer in place of Miss Laura A. Kolk, resigned. It was also voted that the next meeting, which would occur on Nov. 6, Election Day, be omitted.

Dr. Hazen suggested that some sign of recognition be given by the Club to visiting botanists at the time of the A. A. S. meetings this coming December—by a smoker, dinner, or in some other way. On the motion of Dr. Harper, it was voted that the matter be referred to a committee composed of the officers of the Club.

The scientific part of the program consisted of a paper by Miss Laura A. Kolk of Hunter College, entitled: "The Relation between Host and Pathogen in the Smuts." A summary of this lecture, prepared by Miss Kolk, follows:

The distribution of mycelium of *Ustilago avenae* was studied in oat seedlings inoculated by means of the dry spore dusting method. In seedlings five days old and older, the mycelium was found distributed throughout the tissues of the coleoptile and mesocotyl, and no clew could be gained as to its place of initial penetration into the seedling. In seedlings from one to four days old, mycelium was found in the coleoptile from its tip to the coleoptile node, in the space between the first leaf and the coleoptile, in the first leaf, in the tissues of the node, and in the mesocotyl up near the coleoptile node. No mycelium was found in the scutellum, the root node, or the lower portion of the mesocotyl.

In three day old seedlings, initial penetration into the epidermis of the coleoptile was observed with the characteristic "holes" in the cuticle at the point of penetration noted by Brefeld. In one case a chlamyospore outside the seedling was found still attached to its germ tube which had made its way into and across the epidermal cell.

From a cytological study of the mycelium in the tissue of mesocotyl and coleoptile, many hyphae of unusual appearance were found—empty portions of filaments, long drawn-out threads, and swollen hyphae very similar to the hyphae des-

cribed by the older authors as encased in cellulose sheaths. These phenomena are interpreted rather as degeneration of hyphae, than as indicating a host-parasite reaction, but it is hoped that a study of mycelium after it has reached the cells of the growing point will give further information on this point.

ARTHUR H. GRAVES
SECRETARY

ACT OF INCORPORATION OF THE TORREY BOTANICAL CLUB

An act to incorporate the New York Botanical Club. Passed April 21, 1871.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. T. F. Allen, C. F. Austin, William Bower, Isaac Buchanan, F. J. Bumstead, W. DeF. Day, John Darby, Herbert Denslow, D. C. Eaton, W. L. Fischer, W. H. Forman, Charles B. Gerard, O. R. Gross, J. H. Hall, James Hogg, James Hyatt, William H. Leggett, Peter V. LeRoy, James S. Merriam, William M. Tweed, Jr., O. W. Morris, O. H. Perry, F. A. Pollard, J. H. Redfield, M. Ruger, F. A. Rockwith, John Torrey, George Thurber, James W. Ward, Cornelius Corson and G. W. Wilbur, members of the New York Botanical Club, instituted in the city of New York, and such other persons as now are or may hereafter become members of the said club, shall be, and hereby are constituted a body politic and corporate, in fact and in name, by the name of "the New York Botanical Club," and by that name shall have perpetual succession, and be, in law, capable of suing and being sued, defending and being defended, in all courts and places, and in manner of actions and cases whatsoever, and may have a common seal and change the same at their pleasure, and by that name be capable in law of purchasing, receiving, holding, leasing, conveying or otherwise disposing of any estate, real and personal, provided the real estate so held shall not exceed in value fifty thousand dollars in the whole, nor the income of the real and personal estate exceed ten thousand dollars a year.

§2. The said club shall from time to time, forever hereafter, have power to make, constitute, ordain and establish such by-laws and regulations as they shall judge proper for prescribing the officers of the said club, and their respective functions and the mode of discharging the same; for the election of those officers; for the admission of new members; for the government of the officers and members thereof; for collecting annual contributions toward the fund thereof; for regulating the times and places of meeting of the said club; for suspending or expelling such members as shall neglect or refuse to comply with the by-laws or regulations, and generally for the managing and directing the affairs and concerns of the said club; provided such by-laws and regulations be not repugnant to the constitution and laws of this State or of the United States.